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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/652,713

Filing Date: August 31, 2000

Appellant(s): DOAN, TRUNG T.

MAILED

SEP 27 2007

GROUP 1700

Mr. Timothy B. Clise
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed June 18, 2007 appealing from the Office action mailed January 19, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner, which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

A first appeal in the present application was filed on April 24, 2004. The Board rendered a Decision on Appeal on July 29, 2003, which reversed the Examiner's rejection, and imposed anew grounds for rejection.

A second appeal was filed with respect to the present application on April 21, 2004. The Board rendered a Decision on Appeal on June 27, 2005, which reversed the new grounds of rejection imposed in the first appeal and remanded the application to the Examiner for further consideration of a prior art rejection not addressed in the first appeal.

Prosecution was again reopened and after receipt of a final rejection, the Appellant has filed the present Appeal.

There are no other appeals, interferences, or judicial proceedings known to Appellant that will have a bearing on the Board's decision in the present appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is incorrect. A correct statement of the status of the claims is as follows:

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With respect to paragraph 4, Appellant inadvertently omitted claims 42-45 in the last sentence. The examiner asserts that claims 36-45 were rejected in the final office action dated January 19, 2007, and are the subject of the present appeal.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

<i>Patent Number</i>	<i>Inventor</i>	<i>Date of Publication</i>
US 5,756,155	Tzeng et al	May 26, 1998
JP 08-017708	Miyazono Sukenari	January 19, 1996

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

- A) Claims 36-39 and 41-45 are rejected under 35 U.S.C. 102(e) as being anticipated by Tzeng et al (US 5,756,155).

The prior art of Tzeng et al teaches a combination nozzle and a vacuum hood.

Regarding claims 36, 37, and 41: The device comprises a dispenser (inclusive of elements 22 and path 11 and outlet 16) and splash controller (vacuum port inclusive of element 15, 18) see Figs. 2-5. Fig. 4 especially features two concentric nozzles and col.5 lines 5-16. The nozzle is configured to treat the periphery of the wafer according to col. 5 lines 50-65.

Regarding claim 38: The vacuum nozzle completely surrounds the dispenser according to Fig. 4.

Regarding claim 39: See Figs. 2-5.

Regarding the limitation in claims 36 and 41 that the splash controller generates a gas pressure around the wafer edge that is lower than ambient gas pressure, this limitation is inherently performed as a vacuum is provided. Vacuum devices function on the premise that their pressure is lower than the ambient gas pressure and have the structural limitations to support these phenomena. In the case of Tzeng et al a vacuum hood creates an upward flow of gas (suction) about the nozzle, see the abstract.

Regarding claims 42 and 43: The side or a limitation reciting the location of the dispenser releases the chemical, is interpreted as a matter of an intended use and is dependent upon the

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orientation of the wafer. The apparatus of Tzeng et al is inherently capable of releasing a chemical to the first or second side of the wafer.

Furthermore, the inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims. *In re Young*, 75 F. 2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F. 2d 937, 136 USPQ 458, 459 (CCPA 1963)).

Regarding claims 44 and 45: The type of fluid released by the nozzle is a matter of intended use. The dispenser of Tzeng et al is inherently capable of releasing the materials recited in claims 44 and 45 as the type of material dispensed does not structurally limit the claim. An apparatus is what it is and not what it does, *Ex Parte Masham*, 2 UPSQ2d 1647 (Bd. App. & Inter. 1987).

B) Claims 36-39 and 41-45 are rejected under 35 U.S.C. 102(e) as being anticipated by Sukenari (JP 08-017708).

Using the English Translation of the patent, it is noted that the prior art of Sukenari teaches a dual nozzle to remove a film from the periphery of the wafer, see the abstract.

Regarding claims 36, 37, and 41: The device comprises dispenser (interpreted as nozzles 14 and 16) and splash controller (interpreted as nozzles 13, 15, and 17) see Fig.1. Note the nozzles (13-17) are concentric. The nozzles are illustrated as treating the periphery of the wafer and are used to treat the peripheral part of the substrate according the "Purpose" in the abstract.

Regarding claim 38: The vacuum nozzles completely surround the dispensers according to Figure 1.

Regarding claim 39: See Figure 1.

Regarding the limitation in claims 36 and 41 that the splash controller generate a gas pressure around the edge that is lower than ambient gas pressure this limitation is inherently perform as a vacuum is provided.

Regarding claims 42 and 43: The side that the dispenser releases the chemical to is interpreted as a matter of an intended use and is dependent upon the orientation of the wafer. The apparatus of Sukenari is inherently capable of releasing chemical to the first or second side of the wafer. Furthermore, the inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims. In re Young, 75 F. 2d 966, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F. 2d 937, 136 USPQ 458, 459 (CCPA 1963)).

Regarding claims 44 and 45: The type of fluid released is a matter of intended use. The dispenser of Sukenari is inherently capable of releasing the materials recited in claims 44 and 45 as the type of material dispensed does not structurally limit the claim. An apparatus is what it is and not what it does, Ex Parte Masham, 2 UPSQ2d 1647 (Bd. App. & Inter. 1987).

C) Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tzeng et al or Sukenari.

The teachings of Tzeng et al or Sukenari were discussed above. Tzeng et al or Sukenari fails to teach a second nozzle to treat the underside of the wafer. In this case, it would have been obvious for one of ordinary skill in the art at the time of the claimed invention to provide a nozzle as taught by Tzeng et al or Sukenari . The motivation of having such a design is to treat both sides of the wafer and integrate these nozzles to simplify the apparatus. Such design allows for treatment of both sides of the wafer simultaneously . The stance that it is obvious to duplicate the parts of the apparatus of Tzeng et al or Sukenori is

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supported by In re Harza 274 F 2d 669,124 USPQ 378 (CCPA 1960), see MPEP 2144.04.

Making the duplicate nozzles wherein one treats the top of the wafer and the other treats the bottom of the wafer integral is also an obvious matter of design according to In re Larson, 340 F.2d 965,968, 144 USPQ 347, 349 (CCPA 1965) Thus, it would have been obvious at the time of the claimed invention to provide the apparatus of Tzeng et al or Sukenari with a duplicate of the taught nozzles wherein both sides of the wafer are treated.

(10) Response to Argument

A) Appellant argues that the prior art of Tzeng et al discloses a nozzle assembly that includes a self-cleaning feature and that the problem addressed by the Tzeng reference is directed solely to the problem of capturing excess fluid from the tip portion of the nozzle assembly onto the wafer according to the remarks on page 10, paragraph 1. Appellant further argues in the second paragraph that the Tzeng et al prior art fails to teach that the vacuum hood is intended or effective in capturing a chemical that is directed to the wafer and then suctions that chemical from a surface of the wafer.

The examiner interprets such an argument as a matter of an intended use. Note that the claims are held to a device with such structural components as a dispenser (interpreted as an apparatus configured to supply a chemical) and a splash controller (interpreted as a vacuum/suction apparatus). Appellant does not argue that these structural components do not exist, but instead that the claimed device does not treat or is not intended to treat a substrate, specifically the edge bead of the substrate.

Note that a claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). Also, it is well settled that the intended use of a claimed apparatus is not germane to the issue of the patentability of the claimed structure. If the prior art structure is capable of performing the claimed use then it meets the claim. *In re Casey*, 152 USPQ 235, 238 (CCPA 1967); *In re Otto*, 136 USPQ 459 (CCPA 1963). Likewise, claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 263 F. 2d 844, 847, 120 USPQ 528, 531 (CCPA 1959). Apparatus claims cover what a device is, not what a device does *Hewlett-Packard Co. V. Bausch & Lomb Inc* 15USPQ 2d 1525, 1528 (Fed. Cir. 1990).

B) Appellant argues that the prior art of Sukenari fails to teach that the gas discharge nozzles may generate a gas pressure on any portion of the wafer that is lower than an ambient gas pressure. Appellant further argues that Sukenari teaches the nozzles project toward the wafer generate a gas pressure that at least equals and is higher than the ambient gas pressure.

However, the examiner notes that the prior art of Sukenari teaches a local ventilation nozzle 15, exhaust pipe arrangement 17, both splash controllers that are concentric and surround/are positioned about the dispensers 14,16. Vacuum devices function on the premise that their pressure is lower than the ambient gas pressure and have the structural limitations to support these phenomena.

C) On page 13 paragraphs 1 and 2, Appellant argues that the addition of a lower nozzle to the apparatus of Sukenari or Tzeng et al is not a predictable variation. The examiner disagrees

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and opines that it is a matter of the duplication of parts to use the apparatus of Sukenari or Tzeng et al to treat both the bottom and top side of the wafer. To then integrate the apparatus formed from duplicating the apparatus of Sukenari or Tzeng et al is motivated by the advantage of having the capacity to treat the top and bottom is a matter of obviousness and such an integration would further simplify this modified apparatus.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Conferees:

Primary Examiner Sylvia R. MacArthur

Appeal Specialist TC1700 Romulo Delmendo

Supervisory Primary Examiner Parviz Hassanzadeh



